

# Work Order ID 67340

Tuesday, March 15, 2011 2:22:12 PM



Page 1

Item ID: D205-634-011DG

Accept



Setup Start



Revision ID:

Stop



Item Name: Skidtube, Drab Green

Start Date: 3/15/2011 Start Qty: 1.00



Cust Item ID:

Required Date: 3/15/2011 Req'd Qty: 1.00

Customer:



Reference: NCR - Rework

Run Start



Approvals: Process Plan: *W*

Date:

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
----------	--------------

100

0.00



DC

Document Control

Memo

0.00

Photocopy bluefile & type labels per PPP D205-634-011DG  
CHG 008

*8/10/12*

104

0.00



HandFinish

Hand Finishing

Memo

0.00

PULL FROM STOCK:  
1 X D205-634-011DG B67106

REMOVE CAP. PUT ASIDE TO REASSEMBLE TO SAME TUBE

105

0.00



Skidtubes

Skidtubes

Memo

0.00

REMOVE CRACKED SPACERS D4202-1 B67106 (049W)  
REPLACE WITH NEW D4202-1 B67106

*1ST AND 18TH FROM  
APT END.*

*DDP BE*

*11-3-15*

*HA for BG 11-3-18*

<b>DART</b> Dart Aerospace Ltd. 1270 ABERDEEN ST. HAWKESBURY, ON, CANADA K6A 1K7		TC APPROVAL # 09-89 TEL: 1-613-632-5200	
P/N	D205-634-011DG	CHG	CHG008
DESC.	Skidtube	STC	SH96-88
LOT	B67106 ✓	STC	SR00563NY
MODEL	Bell 205/210/212/214/412/UH-1H	STC	
PATENTS: US #5735484 / CA #2222184 EUROPEAN No. # 0828635		MADE IN CANADA D2729-2	

*1 & all 11/03/15*

*B67340*

# Work Order ID 67340

Tuesday, March 15, 2011 2:22:12 PM

Page 2

Item ID: D205-634-011DG

Accept

Setup Start

Revision ID:

Stop

Item Name: Skidtube, Drab Green

Start Date: 3/15/2011 Start Qty: 1.00

Cust Item ID:

Required Date: 3/15/2011 Req'd Qty: 1.00

Customer:

Reference: NCR

Approvals:

Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run Start

Stop

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

106

QC5- Inspect part completeness to step on W/O

0.00

3/15/11

QC

Memo

0.00

Quality Control

108

0.00

Powdercoat

Memo

0.00

Powder Coating

TOUCH UP A/R  
RE-ASSEMBLE ORIGINAL CAP

109

QC5- Inspect part completeness to step on W/O

0.00

3/15/11

QC

Memo

0.00

Quality Control

**Work Order ID 67340**

Tuesday, March 15, 2011 2:22:12 PM

Page 3

Item ID: D205-634-011DG

Accept

Setup Start

Revision ID:

Stop

Item Name: Skidtube, Drab Green

Start Date: 3/15/2011 Start Qty: 1.00

Cust Item ID:

Required Date: 3/15/2011 Req'd Qty: 1.00

Customer:

Reference: NCR

Run Start

Approvals: Process Plan: Date: Tooling: Date:

Stop

QC: Date: SPC (Y/N): Date:

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run HoursTool ID Tool # Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

110

Pick Kit

0.00



Packaging

Memo

0.00

Packaging

RE-PACKAGE USING NEW B/N

11/10/03

B67046 CHC COE

120

QC4- 100% Inspect kits for completeness

0.00



QC

Memo

0.00

Quality Control

130

0.00



Packaging

Memo

0.00

Packaging

Identify and pack for shipping as per PPP D205-634-011DG

Location: \_\_\_\_\_

PPP rev: \_\_\_\_\_

11/13/11

H

11/13/11

**Work Order ID 67340**

Tuesday, March 15, 2011 2:22:12 PM

Page 4

Item ID: D205-634-011DG

Accept

Setup Start

Revision ID:

Stop

Item Name: Skidtube, Drab Green

Start Date: 3/15/2011 Start Qty: 1.00

Cust Item ID:

Required Date: 3/15/2011 Req'd Qty: 1.00

Customer:

Reference: NCR

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

140

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

11/3/21

CL 11/03/21

**POSITIVE RECALL**EFFECTIVE 11,03,16 AUTH CPRELEASED 11,03,17 DATE CP

# Picklist Print

Tuesday, March 15, 2011 2:22:09 PM

Page 1

Work Order ID: 67340

Parent Item: D205-634-011DG

Parent Item Name: Skidtube, Drab Green



Start Date: 3/15/2011

Required Date: 3/15/2011

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev:A 11.02.17 new issue DD verified by: EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D205-634-011DG

Manufactured

No

Each

3.0000



Skidtube, Drab Green

Location

Loc Qty

Loc Code

FG

3

67101

1

67102

1

67105

1

D4202-1

Manufactured

No

Each

333.0000



Spacer

Location

Loc Qty

Loc Code

LG

8

67308

8

LG002

325

65529

13

66121

1

66929

110

67129

201



1  
B67106 @ 8  
u603/15



1  
D11-3-15  
B67308 x2

W/O: 67340

## WORK ORDER CHANGES

DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
11.03.16	UP 11.03.16 BS/67	RE-WORK CRACKED 0.058" WALL X-BOLT SPACERS. REPLACE WITH 0.049" WALL X-BOLT SPACERS THAT ARE OTHERWISE MADE TO D4202 REV.A				UP 11.03.16 BS/67	

Part No: D205-634-011 DG PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date &amp; initial all entries

## Chris Provencal

---

**From:** David Shepherd <dshepherd@dartaero.com>  
**Sent:** March 16, 2011 6:21 PM  
**To:** 'Chris Provencal'  
**Cc:** 'Mike Petsche'; 'Linda Lacelle'; 'Bill Beckett'  
**Subject:** RE: 0.049 Wall Xbolt Spacers

Chris,

The substitution is acceptable. However, I would still like to see that this is repeatable. Per my earlier suggestion, I assume production is building a couple of tubes with 0.049 wall crossbolt spacers to verify that there is no cracking after several swagings???

David

---

**From:** Chris Provencal [mailto:cprovencal@dartaero.com]  
**Sent:** Wednesday, March 16, 2011 9:14 AM  
**To:** David Shepherd  
**Cc:** Mike Petsche  
**Subject:** 0.049 Wall Xbolt Spacers

David,

To approve the re-worked xbolt spacers, I'd need to attach an email from you giving OK to substitute the 0.058" wall crossbolt spacers with 0.049" wall crossbolt spacers. The crossbolt spacers are otherwise made to D4202 Rev. A.

The justification would be the initial testing, as recorded in the original design review, which showed that 0.049" wall xbolt spacers were stronger than welded/c-bored crossbolt spacers. These findings were confirmed when we tested another batch of swaged vs welded samples yesterday (March 15<sup>th</sup>, 2011).

Chris